

$$\begin{array}{c}
 1 \\
 \downarrow \\
 \eta^\ell(a) \quad \xrightarrow{\quad} \quad \eta^{\ell-1}(a) \quad \xrightarrow{\quad} \quad \eta(a) = aba \quad \xrightarrow{\quad} \quad \eta^0(a) = a \quad \xrightarrow{\quad} \quad e \\
 \uparrow \\
 1
 \end{array}
 \qquad
 \begin{array}{c}
 \dots \\
 \downarrow \\
 \eta^\ell(a) \quad \xrightarrow{\quad} \quad \eta^{\ell-1}(a) \quad \xrightarrow{\quad} \quad \eta(a) = aba \quad \xrightarrow{\quad} \quad \eta^0(a) = a \quad \xrightarrow{\quad} \quad e \\
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 \dots
 \end{array}
 \qquad
 \begin{array}{c}
 1 \\
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 \end{array}
 \qquad
 \begin{array}{c}
 1 \\
 \downarrow \\
 \eta^\ell(a) \quad \xrightarrow{\quad} \quad \eta^{\ell-1}(a) \quad \xrightarrow{\quad} \quad \eta(a) = aba \quad \xrightarrow{\quad} \quad \eta^0(a) = a \quad \xrightarrow{\quad} \quad e \\
 \uparrow \\
 0
 \end{array}$$